AMENDMENTS TO THE CLAIMS

1. (Original) A filter having an input electrode, an output electrode, and a single acoustic wave resonator disposed between said input electrode and said output electrode, formed on a substrate, said acoustic wave resonator having one resonance mode for use as a filter, wherein:

said filter has a number of structures capable of simultaneously and independently changing all parameters for determining frequency characteristics of said filter, said parameters including a center frequency of said acoustic wave resonator, an external Q-value between said acoustic wave resonator and said input electrode, and an external Q-value between said acoustic wave resonator and said output electrode, said structures being capable of being simultaneously applied with electric signals independently of one another, said number of structures being at least equal to the number of the parameters, and

said filter includes an electromechanical transducer having a function capable of mechanically deforming one portion of each of said structures of said filter simultaneously and with finite dependency by individually applying the electric signals to electrodes disposed in said structures, respectively.

2. (Original) A filter having an input electrode, an output electrode, and a resonator unit including at least one acoustic wave resonator disposed between said input electrode and said output electrode and comprising a plurality of acoustic wave resonance modes for use as a filter within said acoustic wave resonator, said input electrode, said output electrode, and said resonator unit being formed on a substrate, wherein:

said filter has a number of structures capable of simultaneously and independently changing all parameters for determining frequency characteristics of said filter, said parameters including a coupling coefficient between the plurality of resonance modes of said resonator unit, a center frequency, an external Q-value between said acoustic wave resonator and said input electrode, and an external Q-value between said acoustic wave resonator and said output electrode, said structures being capable of being

simultaneously applied with electric signals independently of one another, said number of structures being at least equal to the number of the parameters, and

said filter includes an electromechanical transducer having a function capable of mechanically deforming one portion of each of said structures of said filter simultaneously and with finite dependency by individually applying the electric signals to electrodes disposed in said structures, respectively.

3. (Original) The filter according to claim 1, wherein said electromechanical transducer is a mechanism which is capable of mechanically deforming a portion of each of said structures of said filter through an electrostatic force or through deformation of a piezoelectric material by applying the electric signal.

4. (Original) The filter according to claim 2, wherein said electromechanical transducer is a mechanism which is capable of mechanically deforming a portion of each of said structures of said filter through an electrostatic force or through deformation of a piezoelectric material by applying the electric signal.

5. (Original) The filter according to claim 3, wherein end faces of said acoustic wave resonator are opposite to an end face of said input electrode and an end face of said output electrode across predetermined gaps, and said filter includes, as said electromechanical transducer, a mechanism for changing the distances between the end faces of said acoustic wave resonator and the end faces of said input electrode and said output electrode, or areas of the end faces that are opposite to each other through an electrostatic force or through deformation of a piezoelectric material.

6. (Original) The filter according to claim 4, wherein end faces of said acoustic wave resonator are opposite to an end face of said input electrode and an end face of said output electrode across predetermined gaps, and said filter includes, as said electromechanical transducer, a mechanism for changing the distances between the end faces of said acoustic wave resonator and the end faces of said input electrode and said

output electrode, or areas of the end faces that are opposite to each other through an electrostatic force or through deformation of a piezoelectric material.

7. (Original) The filter according to claim 3, including, as said electromechanical transducer, a mechanism for mechanically deforming a portion of said acoustic wave resonator through an electrostatic force or through deformation of the piezoelectric material.

8. (Original) The filter according to claim 4, including, as said electromechanical transducer, a mechanism for mechanically deforming a portion of said acoustic wave resonator through an electrostatic force or through deformation of the piezoelectric material.

9. (Original) The filter according to claim 7, wherein said electromechanical transducer is a mechanism which changes a tension applied to said acoustic wave resonator with a mechanical deformation of a portion of said acoustic wave resonator.

10. (Original) The filter according to claim 8, wherein said electromechanical transducer is a mechanism which changes a tension applied to said acoustic wave resonator with a mechanical deformation of a portion of said acoustic wave resonator.

11 – 22. (Cancelled)

23. (Original) A composite filter comprising a plurality of the filters that are in parallel according to claim 1, said filters having changeable center frequency ranges different from one another.

24. (Original) A composite filter comprising a plurality of the filters that are in parallel according to claim 2, said filters having changeable center frequency ranges different from one another.

25 – 36. (Cancelled)

37. (Original) The composite filter according to claim 23, wherein each of said filters is formed on the same substrate.

38. (Original) The composite filter according to claim 24, wherein each of said filters is formed on the same substrate.

39 – 40. (Cancelled)

41. (Original) A filter assembly comprising the filter according to claim 1 hermetically sealed in a package.

42. (Original) A filter assembly comprising the composite filter according to claim 23 hermetically sealed in a package.

43 – 50. (Cancelled)

51. (Original) A method of changing frequency characteristics of a filter, comprising the steps of:

applying the filter according to claim 1 with a first electric signal to mechanically deform said acoustic wave resonator to change the center frequency of said resonator; and,

applying the filter according to claim 1 with a second and a third electric signal to change a relative position of the input electrode to the acoustic wave resonator and to change a relative position of the output electrode to the acoustic wave resonator to change the external Q-value.

52. (Original) A method of changing frequency characteristics of a filter, comprising the steps of:

applying the filter according to claim 2 with one or a plurality of first electric signals to mechanically deform said acoustic wave resonator to change the center frequency of a plurality of resonance modes of the resonator unit;

applying the filter according to claim 2 with a second and a third electric signal to change a relative position of the input electrode to the acoustic wave resonator

and to change a relative position of the output electrode to the acoustic wave resonator to change the external Q-value; and

applying the filter according to claim 2 with one or a plurality of fourth electric signals to deform each of a plurality of sites which provide coupling between the resonance modes of said resonator unit to change the coupling coefficient between the resonance modes.

53 – 54. (Cancelled)

55. (Original) A method of changing frequency characteristics of the composite filter according to claim 23, comprising the step of changing the frequency characteristics of each filter to change the frequency characteristics of said composite filter.

56 – 57. (Cancelled)

58. (New) A filter assembly comprising the filter according to claim 2 hermetically sealed in a package.

59. (New) A filter assembly comprising the composite filter according to claim 24 hermetically sealed in a package.

60. (New) A method of changing frequency characteristics of the composite filter according to claim 24, comprising the step of changing the frequency characteristics of each filter to change the frequency characteristics of said composite filter.